



National Weather Service Spring Flood Outlook #3

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National Weather Service – Des Moines, IA

March 13, 2020





Spring Flood Outlook

As of 3/10



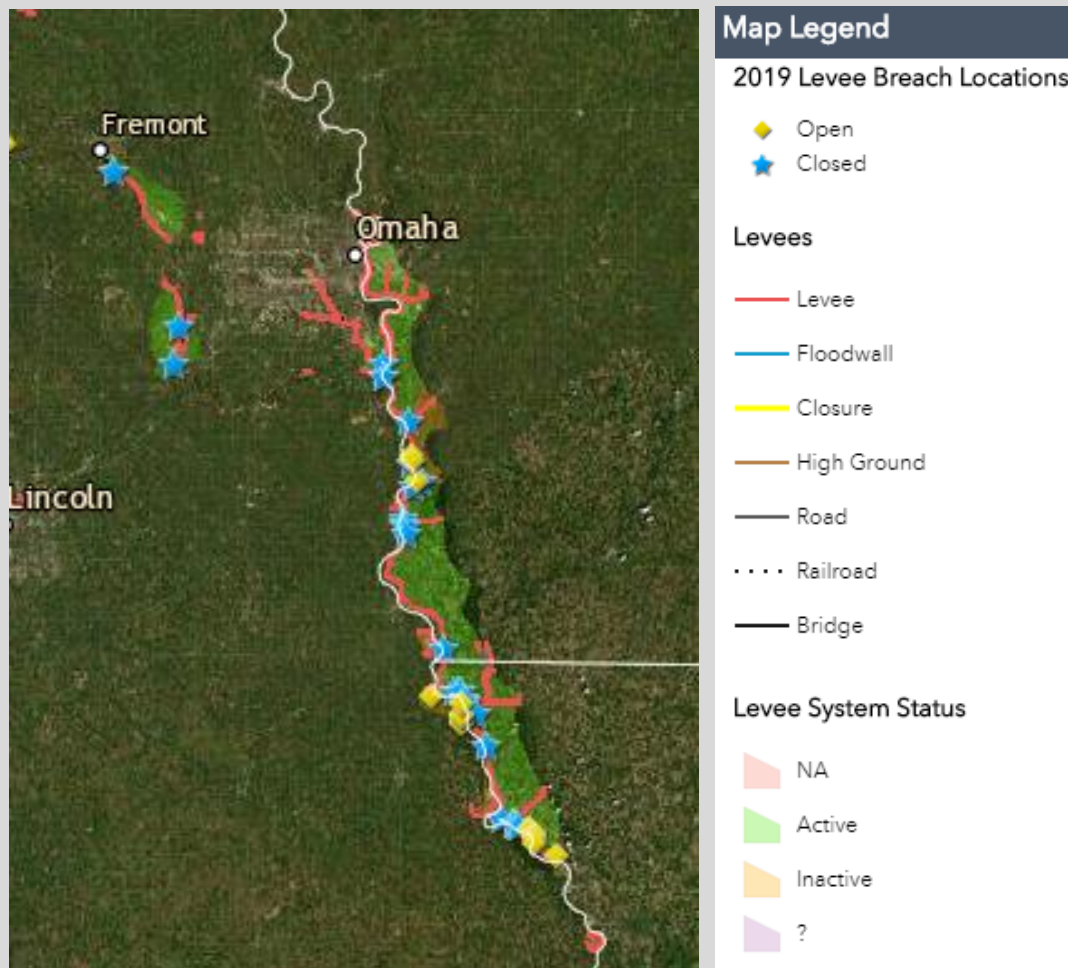
River	Spring Flood Risk
Mississippi River	Much Above Normal
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National Weather Service 2020 Spring Flood Outlook Schedule

Thursday, February 13, 2020; Thursday, February 27, 2020 &
Thursday, March 12, 2020

Levee Breaches on Missouri River

As of 3/10

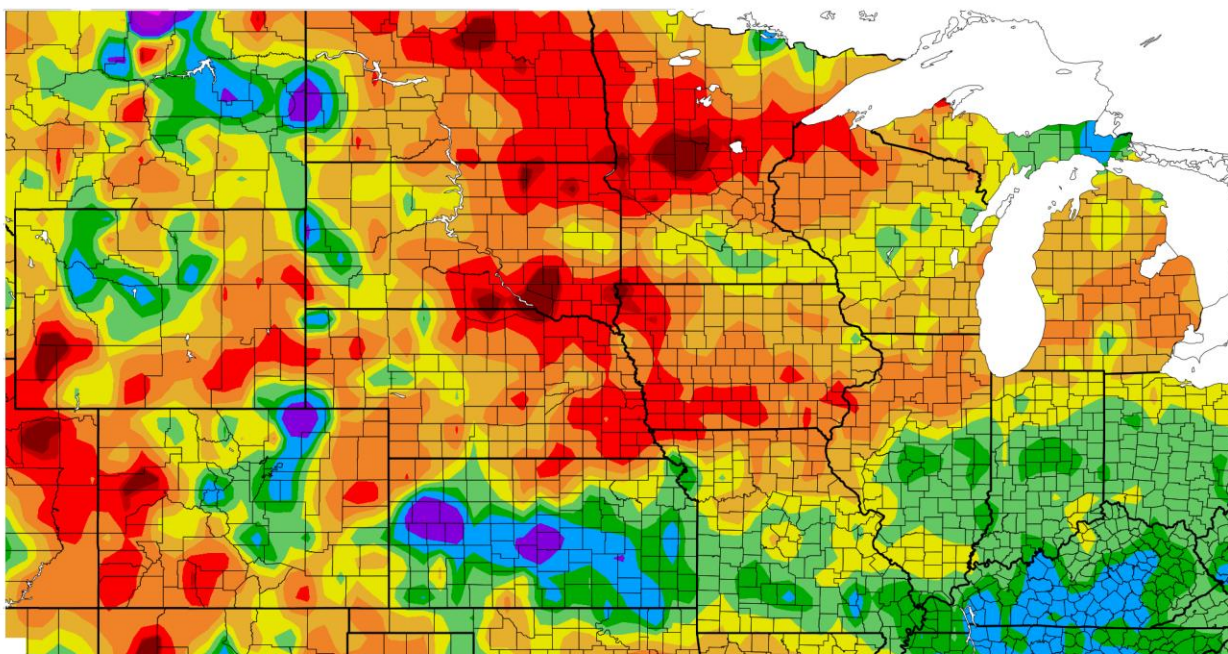


URL: <https://www.nwo.usace.army.mil/Omaha-District-System-Restoration-Team/>

Precipitation % of Normal

Past 30 Days

Percent of Normal Precipitation (%)
2/9/2020 – 3/9/2020



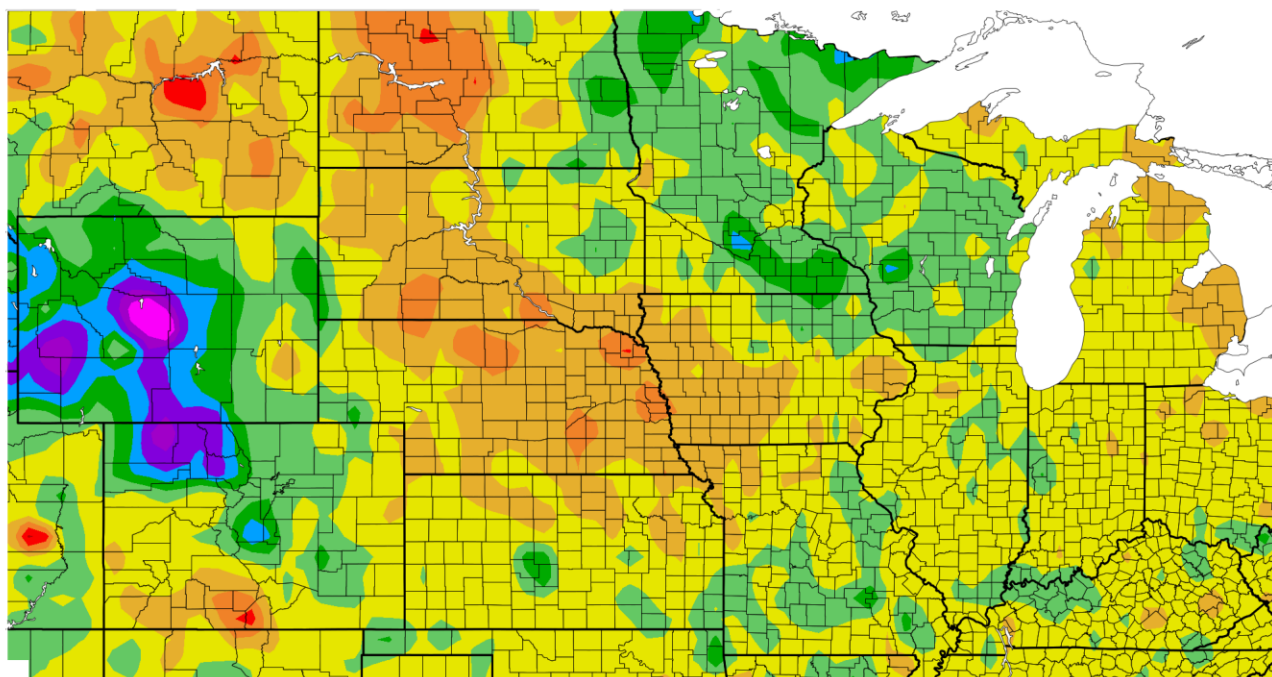
Generated 3/10/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Dep from Normal

Past 30 Days

Departure from Normal Temperature (F)
2/9/2020 – 3/9/2020



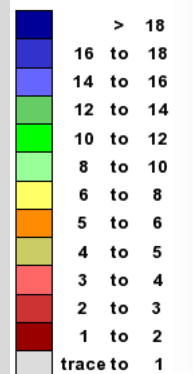
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NOAA Regional Climate Centers

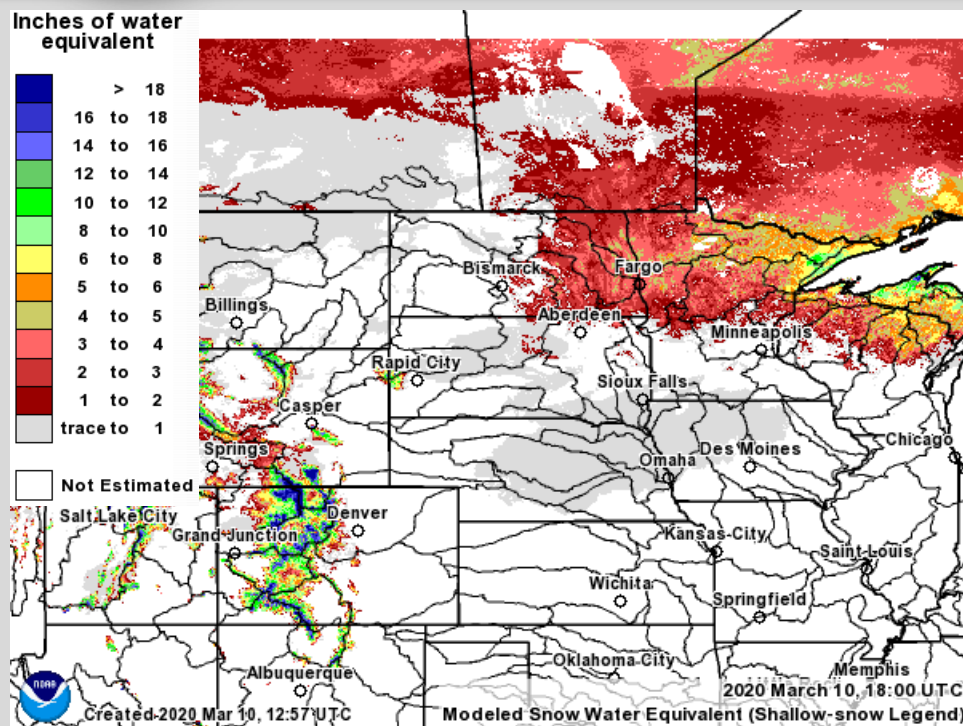
Snowpack

Water Equiv & Depth vs. Normal, 3/10/2020

Inches of water equivalent

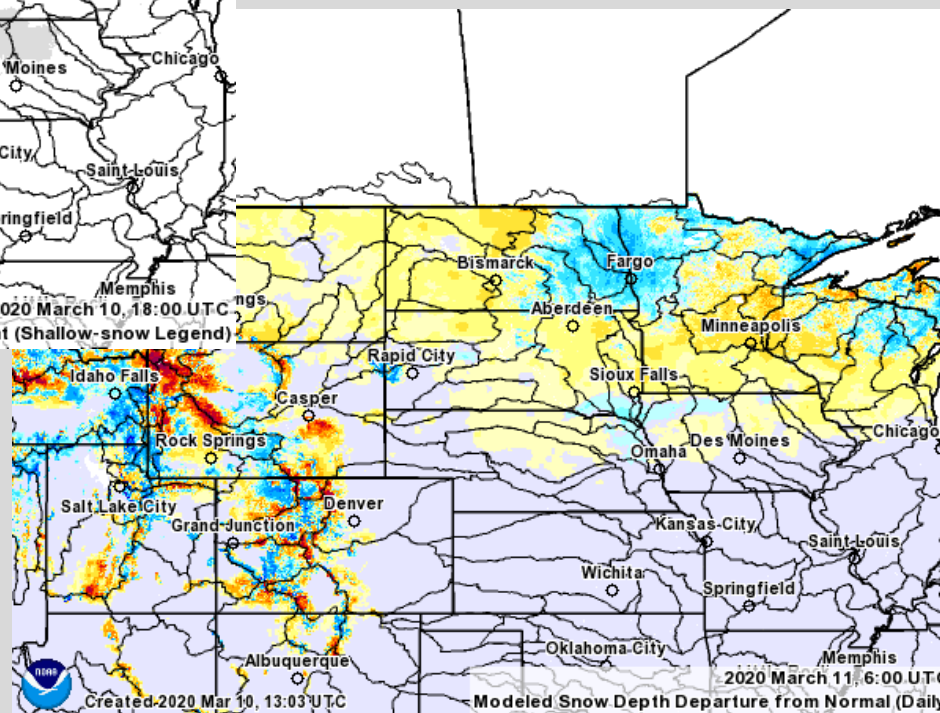


Not Estimated

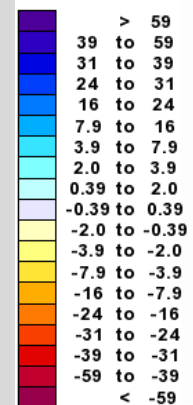


Snow Water Equivalent

Snow Depth vs. Normal



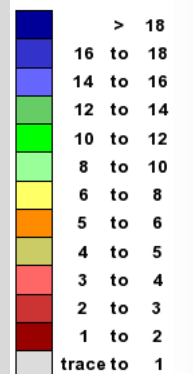
Inches of depth



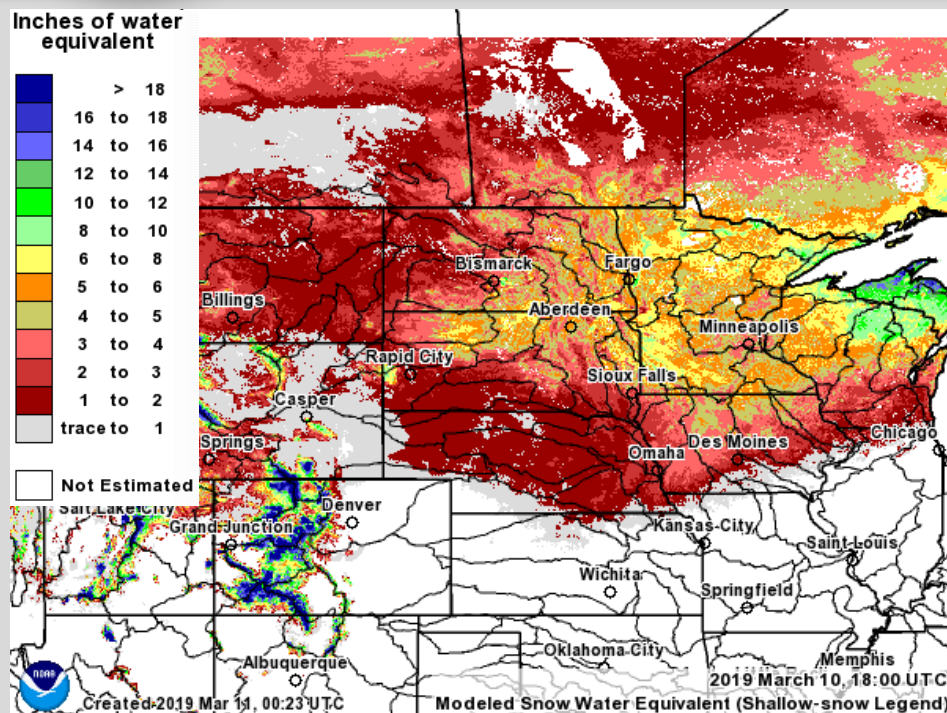
Not Estimated

Water Equiv & Depth vs. Normal, 3/10/2019

Inches of water equivalent

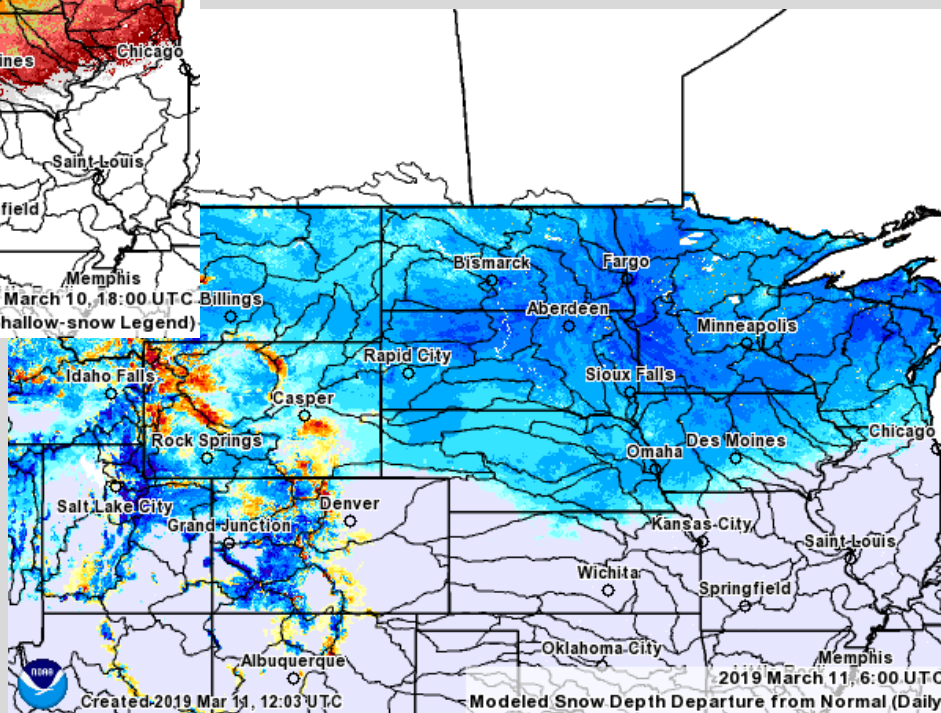
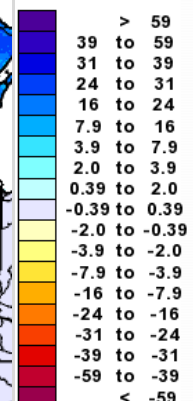


Not Estimated



Snow Depth vs. Normal

Inches of depth

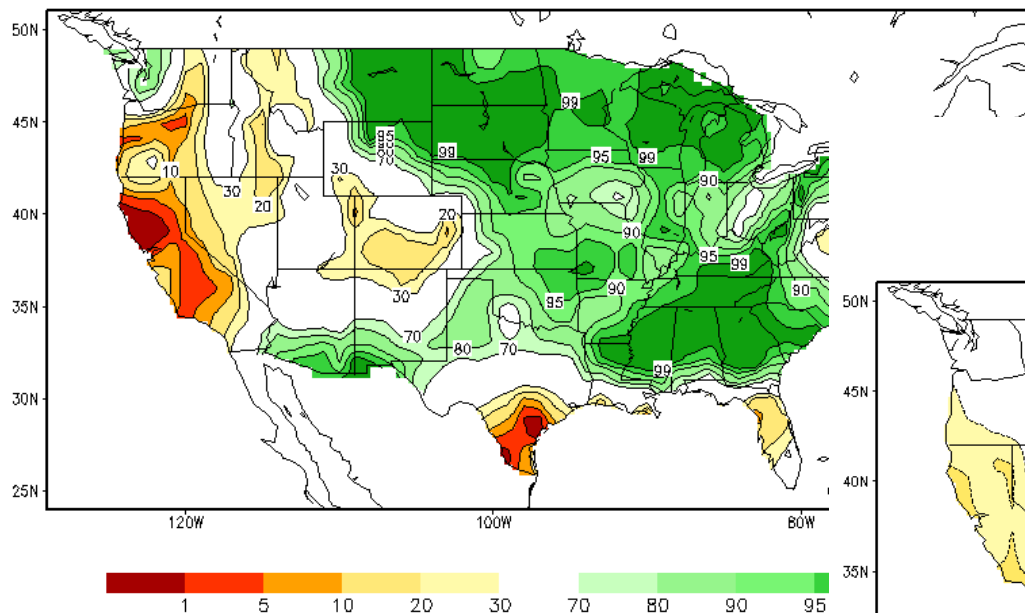


Snow Water Equivalent

Soil Moisture Percentile

Current Values & Change, 3/9

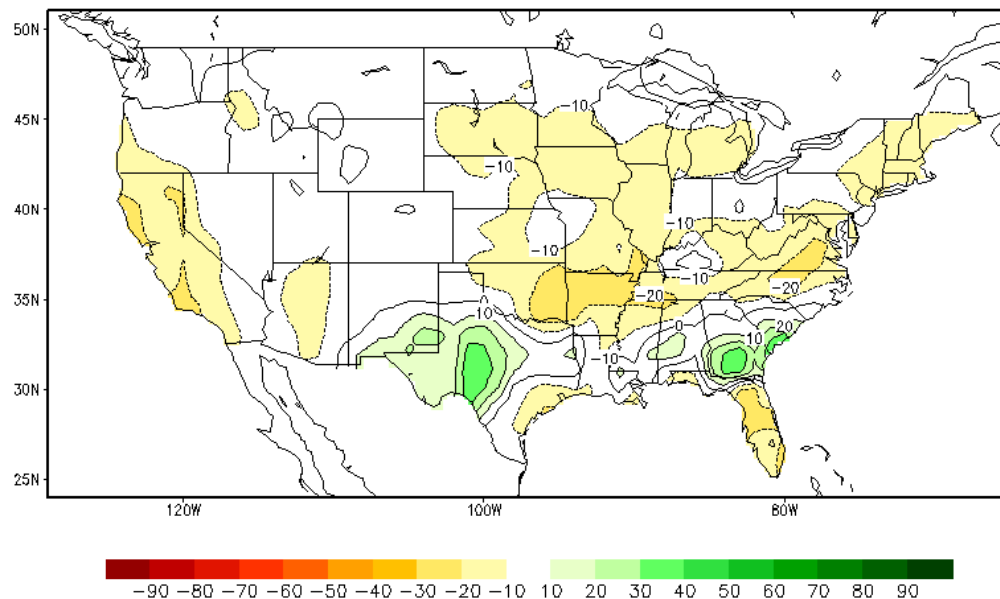
Calculated Soil Moisture Ranking Percentile
MAR 09, 2020



Current Percentiles

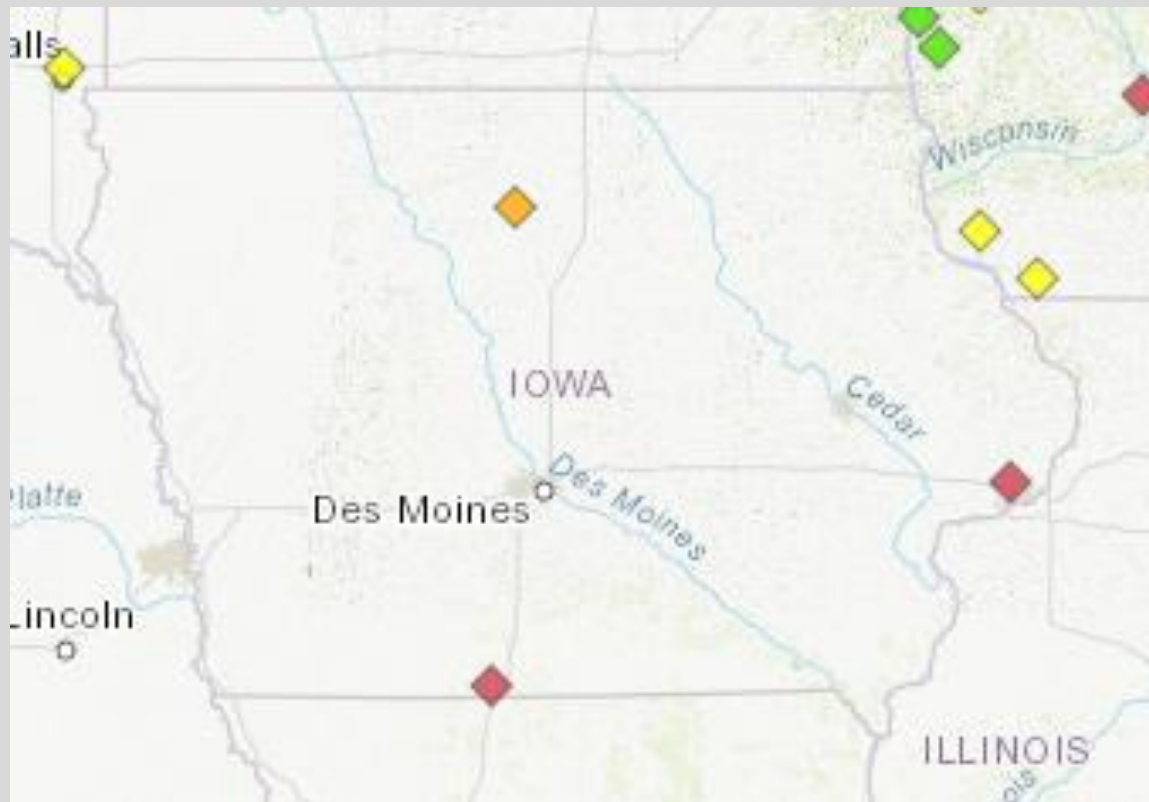
Change

Calculated Soil Moisture Anomaly Change
MAR 09, 2020 from FEB.28



Ground Frost

Depth, 3/10



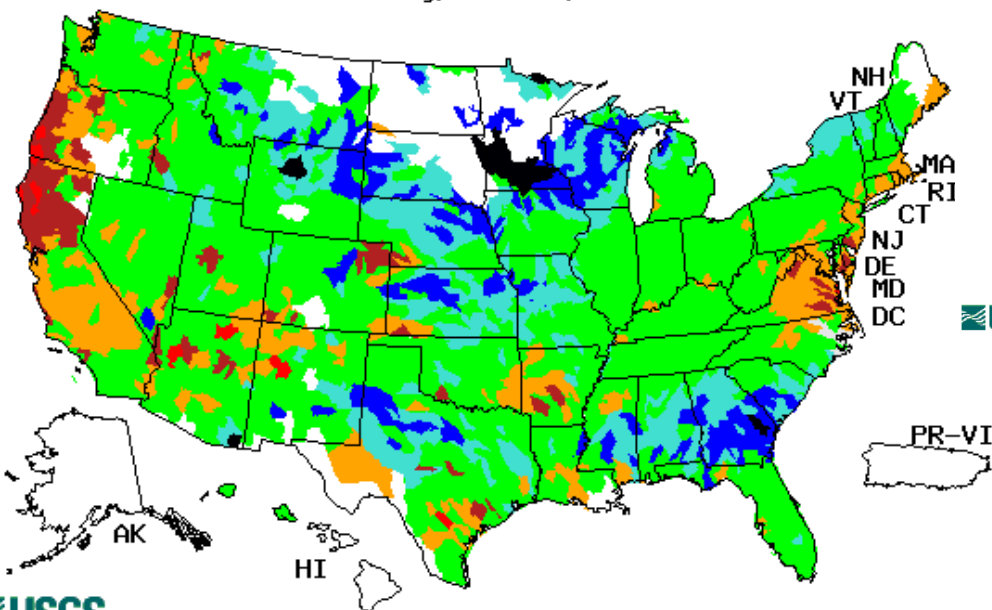
FrostDepth

- ◆ > 60 - 80 (in)
- ◆ > 48 - 60 (in)
- ◆ > 36 - 48 (in)
- ◆ > 24 - 36 (in)
- ◆ > 18 - 24 (in)
- ◆ > 12 - 18 (in)
- ◆ > 6 - 12 (in)
- ◆ > 3 - 6 (in)
- ◆ 0 - 3 (in)

Current Streamflow

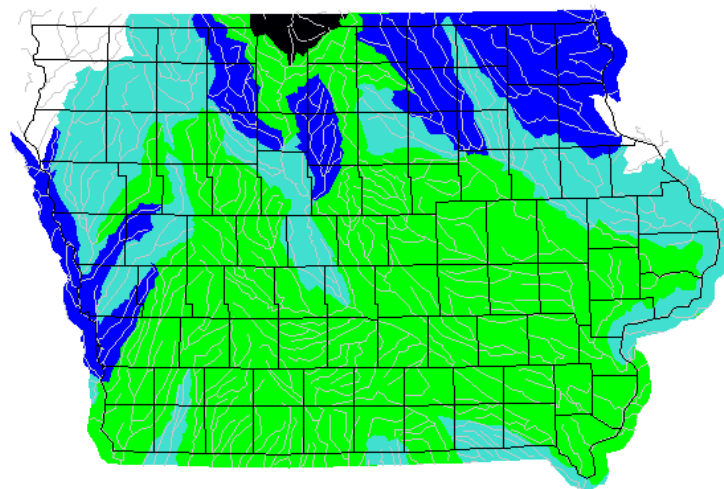
Values vs. Normal (Percentiles), 3/10

Monday, March 09, 2020



USGS

Monday, March 09, 2020



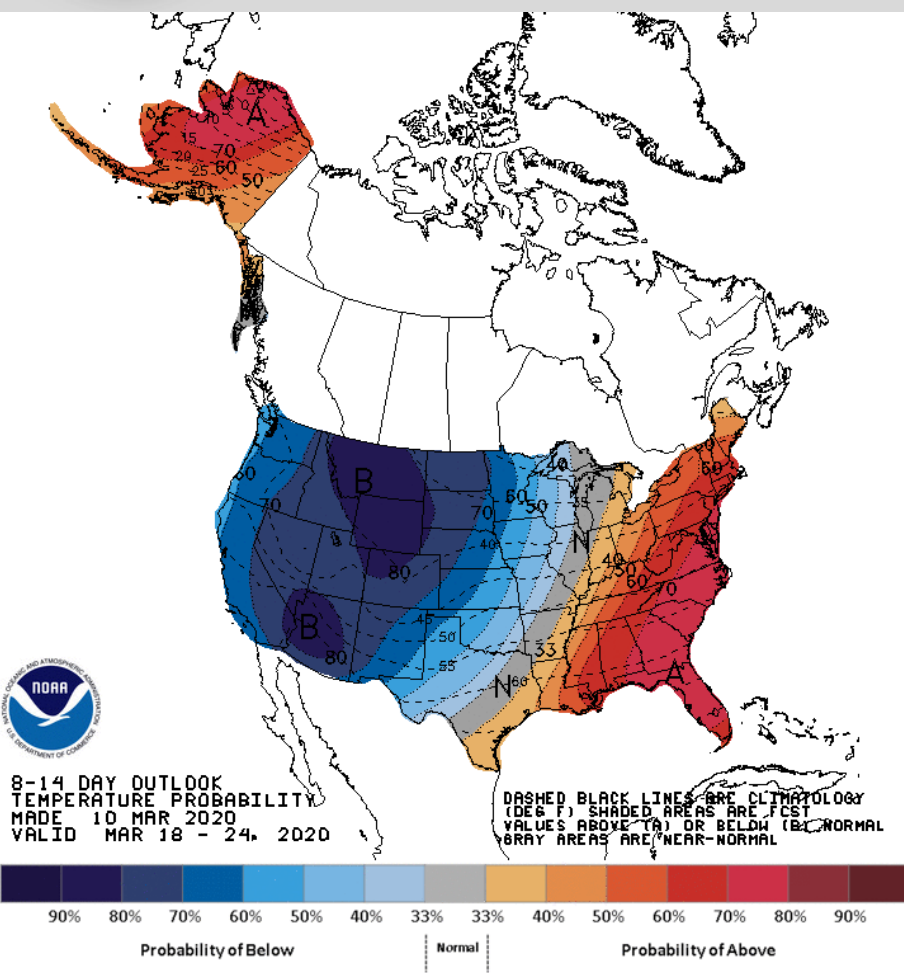
Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

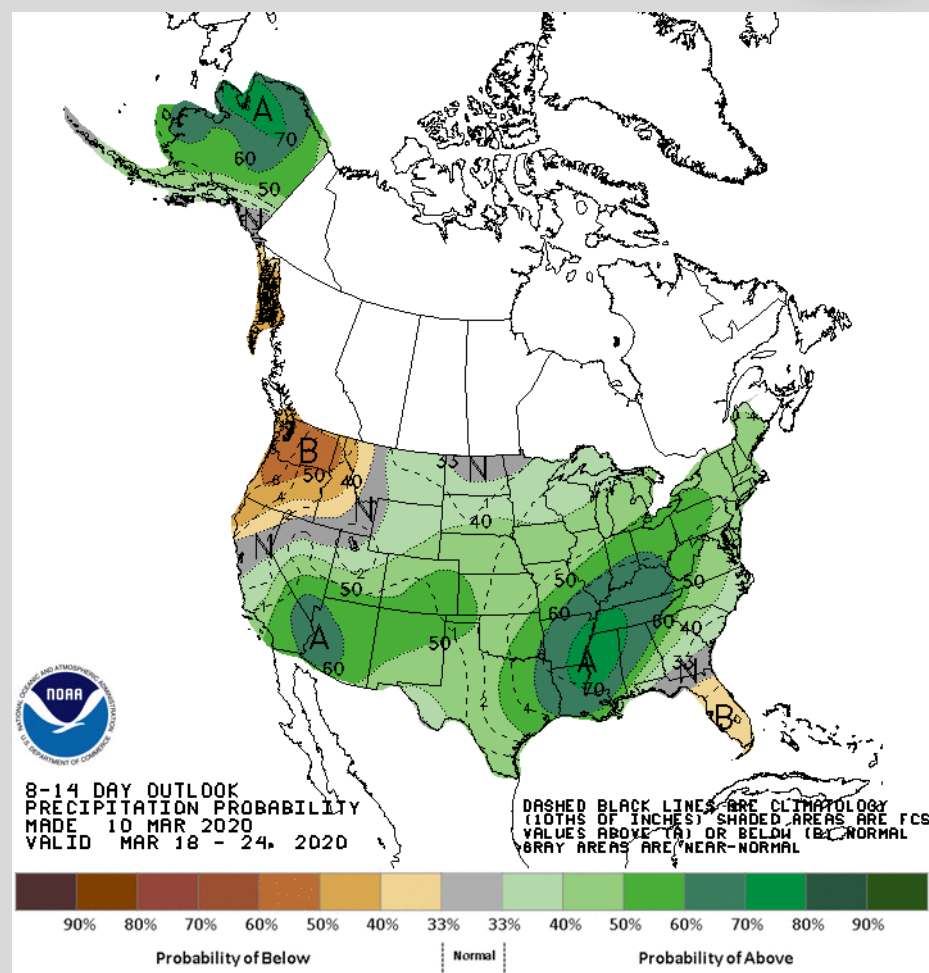
USGS
science for a changing world



2-Week Temp/Precip Outlooks



Temperature

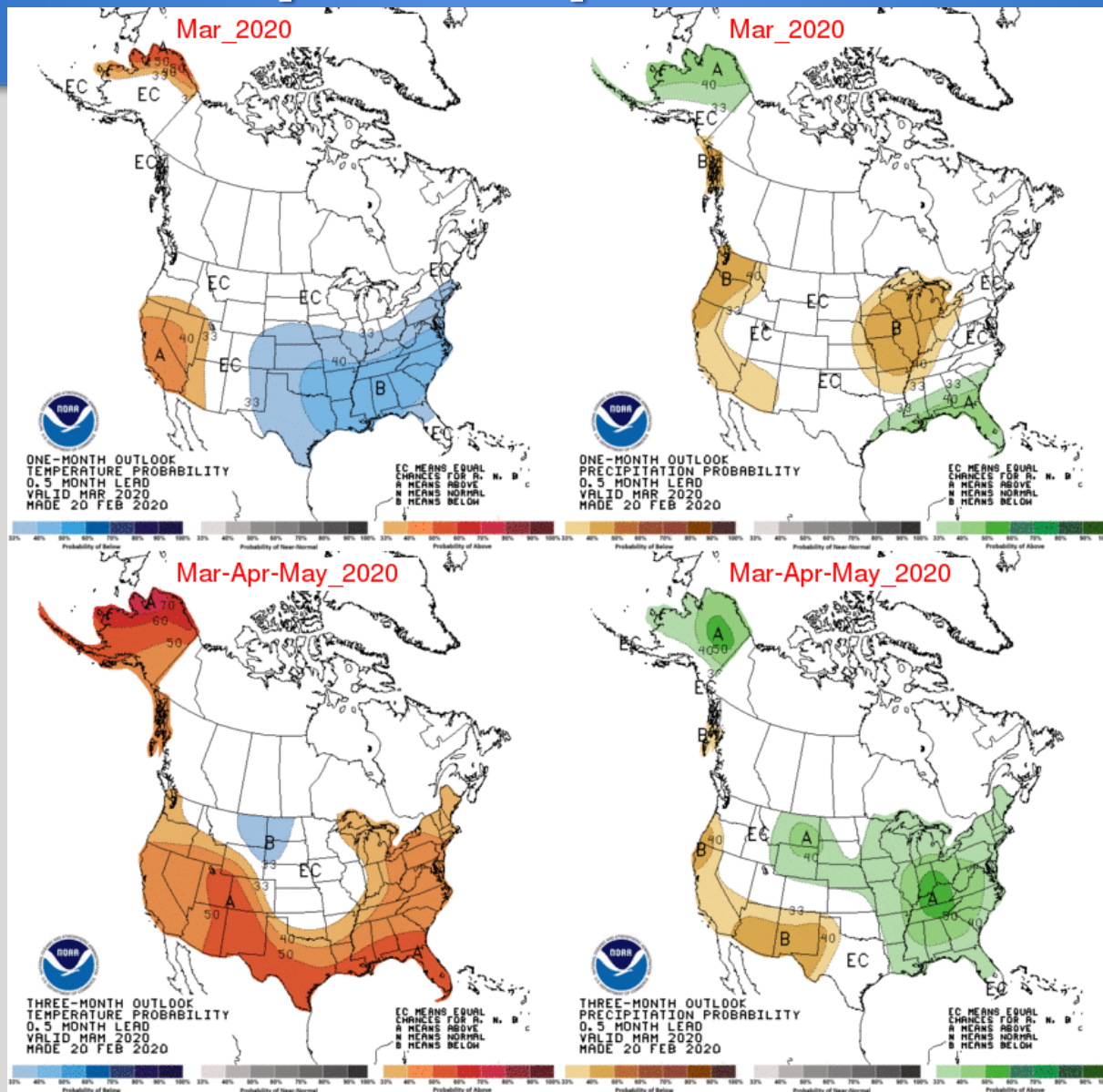


Precipitation

Temp/Precip Outlooks

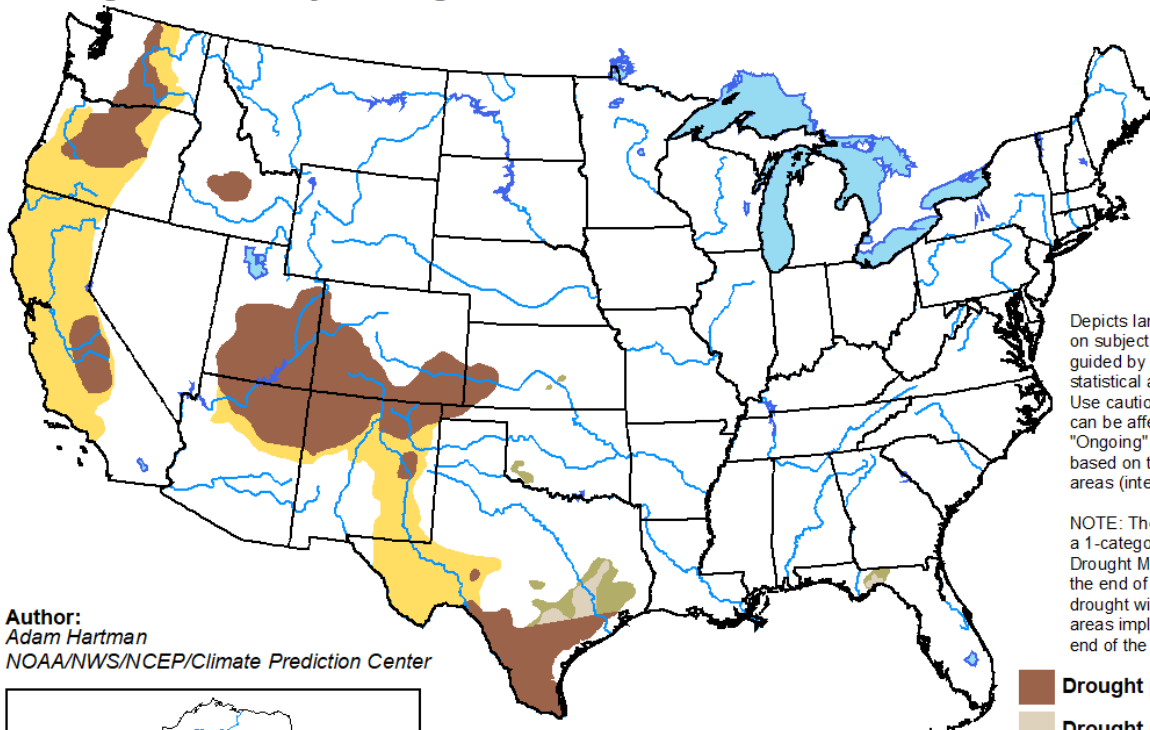
Temperature
on Left

Precipitation
on Right

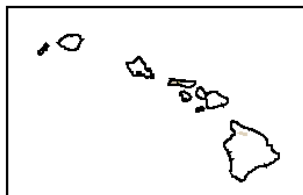
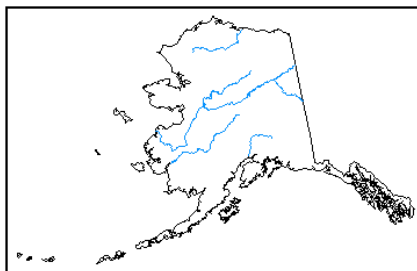


U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for February 20 - May 31, 2020
Released February 20



Author:
Adam Hartman
NOAA/NWS/NCEP/Climate Prediction Center



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZ73>



Spring Flood Outlook Factors

As of 3/10



Factor	Contribution to Flood Risk
Snowpack	Lowered Risk
Soil Moisture	Increased Risk
Frost Depth	Lowered Risk
Streamflow/Stream Levels	Increased Risk
Precipitation Outlook	Increased Risk

2020 Mississippi River Spring Snowmelt Timing

(Dubuque, IA → Gregory Landing, MO)

Rising river levels expected through March. Peak river levels remain highly uncertain. **Flooding from snowmelt runoff alone is not a certainty.**

Locations that do reach flood stage will likely see that happen between March 18 and March 25. Timing and peak heights is highly dependent on additional precipitation in the next several weeks.

When will the Mississippi River Crest? *



*** NOTE: Dry conditions through March would keep peak levels lower. In this case, some locations could crest at levels below flood stage. Stay tuned to official forecasts and flood products over the coming weeks.**



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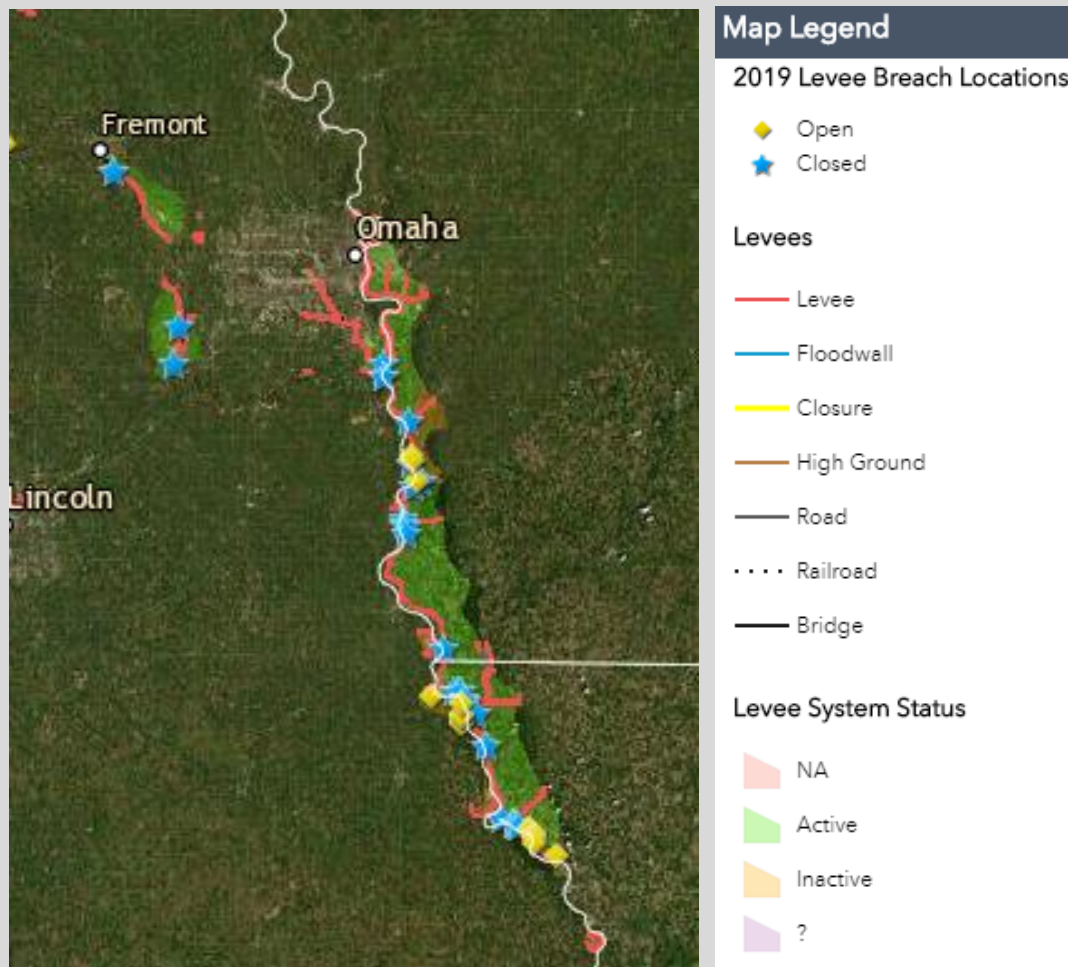
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Thank You



➤ NWS Office Contacts

- Des Moines – 515-270-4501
 - Jeff Zogg (Hydrologist): jeff.zogg@noaa.gov
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